

**10/589546**

DOCKET: CU-5016

**IAP11 Rec'd PCT/PTO 16 AUG 2006****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Katsuya TESHIMA

TITLE: CORUNDUM CRYSTAL FORMED BODY

THE COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, VA 22313-1450

**AMENDED CLAIMS**

1-15. (cancelled)

16. (new) A corundum crystal formed body comprising a platinum base material and a corundum crystal portion formed on the platinum base material.

17. (new) The corundum crystal formed body according to claim 16, wherein the corundum crystal portion comprises a corundum crystal having at least one crystal face selected from the group consisting of a {113} face, a {012} face, a {104} face, a {110} face, a {101} face, a {116} face, a {211} face, a {122} face, a {214} face, a {100} face, a {125} face, a {223} face, a {131} face, and a {312} face.

18. (new) The corundum crystal formed body according to claim 16, wherein the corundum crystal portion comprises a corundum crystal having a dominant crystal face other than a {001} face.

19. (new) The corundum crystal formed body according to claim 17, wherein the corundum crystal is derived from a crystal having a hexagonally dipyramidal shape.

20. (new) The corundum crystal formed body according to claim 18, wherein the corundum crystal is derived from a crystal having a hexagonally dipyramidal shape.

21. (new) The corundum crystal formed body according to claim 17, wherein the corundum crystal is colorless.

22. (new) The corundum crystal formed body according to claim 18, wherein the corundum crystal is colorless.

23. (new) The corundum crystal formed body according to claim 17, wherein at least one kind of element selected from the group consisting of a chromium, an iron, a titanium, a nickel, a vanadium and a cobalt is added as a coloring component to the corundum crystal.

24. (new) The corundum crystal formed body according to claim 18, wherein at least one kind of element selected from the group consisting of a chromium, an iron, a titanium, a nickel, a vanadium and a cobalt is added as a coloring component to the corundum crystal.

25. (new) A process for producing a corundum crystal formed body, wherein a corundum crystal is formed on a platinum base material by a flux evaporation

method of heating a sample containing a raw material and a flux to precipitate a crystal and grow the crystal by use of flux evaporation as driving force.

26. (new) The process for producing a corundum crystal formed body according to claim 25, wherein the corundum crystal has a hexagonally dipyramidal shape as its base shape.

27. (new) The process for producing a corundum crystal formed body according to claim 25, wherein the flux contains a molybdenum compound.

28. (new) The process for producing a corundum crystal formed body according to claim 26, wherein the flux contains a molybdenum compound.

29. (new) The process for producing a corundum crystal formed body according to claim 27, wherein the molybdenum compound is a molybdenum oxide, or a compound which is heated to generate the molybdenum oxide.

30. (new) The process for producing a corundum crystal formed body according to claim 28, wherein the molybdenum compound is a molybdenum oxide, or a compound which is heated to generate the molybdenum oxide.

31. (new) The process for producing a corundum crystal formed body according to claim 27, wherein the flux contains an evaporation inhibitor

32. (new) The process for producing a corundum crystal formed body according to claim 31, wherein the evaporation inhibitor is an alkali metal compound.

33. (new) The process for producing a corundum crystal formed body according to claim 32, wherein the alkali metal compound is an alkali metal oxide, or a compound which is heated to generate the alkali metal oxide.
34. (new) The process for producing a corundum crystal formed body according to claim 33, wherein a mol number of an alkali metal atom in the alkali metal compound is 40% or less by mol of a total mol number of the sample.
35. (new) The process for producing a corundum crystal formed body according to claim 25, wherein a mol number of the raw material is 10% or less by mol of a total mol number of the sample.